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PROCEEDINGS

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GENERAL NOTES

SKULL OF FOSSIL PORPOISE, *Delphinodon dividum*, FROM BANKS OF POTOMAC RIVER, AT WAKEFIELD, VIRGINIA.

On August 17, 1939, while in the company of Mr. John H. Dante, Mr. Robert Fuerst discovered a porpoise skull protruding from the Miocene sediments of the west bank of the Potomac River a little south of Colonial Beach, Virginia. The skull, which was badly damaged on removal, was brought to the Department of Geology and Geography at The Catholic University of America where it was restored and identified by the writer. It proved to be the remains of a fossil porpoise, *Delphinodon dividum*, common in the Calvert Miocene of the Chesapeake Region.

The remains were exposed on the face of a ten foot cliff, about a foot above the bottom of the river. The men who removed the skull informed me that, under the best conditions, only about two inches of the posterior portion of the skull was above water. To complicate matters toward the end of the work of removal, the water had risen about a foot. In addition to this, the exposure was about fifty feet from the nearest sandy beach in a rather inaccessible location approximately a mile north of Wakefield Mansion. Under these adverse conditions it was not possible to remove the skull with the care that ordinarily could be exercised.

The matrix in which the skull was embedded contained much fossil bone and consisted of a fine marine sand with very litle admixed mud. The position of the skull with respect to the strata indicated that it had come to rest at the time of burial with the rostrum inclined downwards at a considerable angle. From this it would appear that, after dismemberment from the rest of the body, it had been lodged in a pocket not far beyond the shore limits.

The writer, in the summer of 1938, found a considerable quantity of dismembered cetacean remains in this area together with remnants of a partially ossified vertebra of the Miocene shark, *Carcharodon megalodon* ? which, so far as he is informed, has only been reported otherwise from Zone 12 of the Chesapeake Miocene series. The similarity of the vertebrate fauna from these two areas would make it appear that the strata in question were approximately of uppermost Calvert age.

The skull, as restored, is 150 mm. wide at the orbits; 190 mm. wide at the zygomatic processes of the squamosals; and has an overall height of 100

mm. The occipital and orbital areas of the skull are reasonably well preserved, but the last quarter of the rostrum is lacking. The dimensions and general appearance of the skull here described resemble so closely those of *Delphinodon dividum* at the National Museum[1] and another specimen of this species procured by the writer[2] from Zone 12 of the Miocene series of the Calvert Cliffs, near Parker Creek, Maryland, that there can be little doubt as to the identification.

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THE CORRECT NAME OF THE FLORIDA HYDATINA.

This beautiful mollusk has for a long time been sailing under a relative's name, namely *Hydatina physis.* This is probably largely due to the fact that the animals of members of this genus rarely come into the hands of the taxonomist who deals chiefly with their shells.

We have recently had a beautiful series of specimens of the Florida Hydatina brought to our Institution by Mr. John H. Irons, gathered at Lake Worth, Florida, which show at a glance that the animal has an entirely different color scheme from that pictured for *H. physis.* Our mollusk, instead of being variously ornately attired, has a unicolor brown tint which varies from a burned umber edge at the edge of the mantle to light brownish drab on the major portion of the upper surface. The tip of the tentacles agrees with the edging of the mantle, while the base agrees with the major portion of the body. The foot is light brownish drab. The shell itself is marked by pale and light spiral zones, usually brown ones alternating with bluish black. A search of the literature reveals that in 1786 Solander (Humphrey) used the name *Bulla vesicaria* in the catalogue of the Portland Museum, page 136, for the West Indian shell, basing this upon Albertus Seba's "Locupletissimi rerum naturalium thesauri," vol. 3, pl. 38, figs. 46–48; *vesicaria* therefore becomes the specific name for the large beautiful Florida Hydatina.

We are greatly indebted to Mr. Irons for bringing to our attention the decidedly distinctive characters of the Florida species as compared with those from the Orient. A large series of beautifully preserved specimens show plainly from the color scheme alone that our Florida species has nothing in common with that of the Pacific.

Mr. Irons furnished me with the following interesting notes on the habits of this animal.

"Hydatina evidently spends most of its life burrowing in the silt and sand of sheltered waters. It emerges at breeding time when the egg cases are delivered and attached to small marine growths where fertilization evidently takes place."

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[1] True, F. W., 1912: Jo. Acad. Nat. Sci., Phila. (n. s.) 15; pp. 163–194.

[2] Barwick, A. R., 1939, Amer. Midland Nat., Vol. 22, No. 1; pp. 154–159.